Pilot operated two way cartridge valve. Normally open. Pilot to close passage between ports one and two.

**PILOT RATIO NOTES:**

1. Determine the MAXIMUM possible system pressure. Multiply X 1.1 = SYSTEM
2. Determine MINIMUM possible pilot pressure. Multiply X .9 = PILOT
3. Divide SYSTEM by PILOT = PILOT TO SYSTEM RATIO
4. Round up to standard available ratio.

**FLUID TEMPERATURE:**
-45°F, (42.7°C) to 200°F, (93.3°C)

**SPECIFICATIONS:**
- 1. Piston Guide Ring: UHMW material
- 2. O-Ring Seal: Buna N (Also See Options)
- 3. Vent: Optional T Port Locations
- 4. Filter Retainer
- 5. Piston O-Ring Seal: Buna N (Also See Options)
- 6. Bonnet O-Ring Seal: Buna N (Also See Options)
- 7. 3/16" (4.763) Spanner Holes (2 Pl.)
- 8. 1/8 NPT Pilot Port (Also See Options)
- 9. Bonnet, Aluminum material
- 10. Actuator Body, Aluminum
- 11. Actuator Piston, Aluminum
- 12. Poppet, Hard Stainless
- 13. Cartridge Seat, Hard Stainless
- 14. Cartridge Seat Retaining Ring
- 15. Mount O-Ring Seal, Buna N (Also See Options)
- 16. Actuator Piston Return Spring, Stainless
- 17. Poppet and Actuator Return Spring, Stainless
- 18. Poppet Return Spring Retainer Assembly
- 19. Filter, 10 Micron, Sintered Bronze.
- 20. Back Up Rings, Teflon
- 21. Poppet Seal, TFE
- 22. Poppet Seal, TFE
- 23. Poppet, Hard Stainless
- 24. Cavity Form Tools: FT+ cavity# (1.75"
- 25. Cavity Form Tools: FT+ cavity# (1.75"
- 26. Spring (Used on valves = "A" Dia. 1-7/8 & 2-1/4"
- 27. Orifice Options, Ø0.015 or Ø0.031
- 28. Orifice includes retaining ring.

**STANDARD OPTIONS**

**TOOLING**

- 1/8 (3.175) Pin Spanner Tool
- 3/16 (4.763) Face Spanner Tool
- Order No. 471, Ref. Key No. 20
- Order No. 482, Ref. Key No. 13

**Cavity & Housing**

**For 82 Series Valve:**
- Cavity C-8502 (8-2):
  - See Spec. Sheet 1200630
- Line Mount Housings:
  - See Spec. Sheets 1200672 and 1203123
- Panel Mount Housings:
  - See Spec. Sheets 1202981 and 1202990

**For 84 Series Valve:**
- Cavity C-8542 (10-2):
  - See Spec. Sheet 1200621
- Line Mount Housings:
  - See Spec. Sheets 1200674 and 1201455
- Panel Mount Housings:
  - See Spec. Sheets 1202982 and 1202990

**Order Valve No.**

<table>
<thead>
<tr>
<th>Valve No.</th>
<th>Pilot To System Ratio</th>
<th>&quot;A&quot; Diameter</th>
<th>Cavity &amp; Housing</th>
<th>Pressure Drop Chart Without Orifice Only</th>
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<tbody>
<tr>
<td>82H27270400</td>
<td>40:1</td>
<td>1.50</td>
<td>38.1</td>
<td>CV = 0.5</td>
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<tr>
<td>82H3270490</td>
<td>49:1</td>
<td>1.62</td>
<td>41.2</td>
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<tr>
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<td>1.87</td>
<td>47.5</td>
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<td>104:1</td>
<td>2.25</td>
<td>57.2</td>
<td>150 PSI</td>
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<tr>
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<td>1.50</td>
<td>38.1</td>
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<td>2-1/2 GPM</td>
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</table>

**Without optional ORIFICE, flow is bi-directional.**

**With Orifice, flow from Port 1 to Port 2 Only.**