Fusible Valves

Frangible Bulb and Eutectic Material

upto 690 bar, 200 litres per minute (nominal)

Superior performance throughout the full operational range

Features:
- 316L stainless steel
- up to 200 litres per minute
- Multiple temperature options
INTRODUCTION

Bifold Fluidpower fusible valves have been applied in onshore/offshore oil and gas production safety shutdown systems since 1989. The extensive range includes valves and basic screw-in plugs for pneumatic/low pressure liquid applications, and single and two-stage valves for high pressure liquid service at pressures up to 690 bar (10000psi). Both pneumatic and high pressure liquid service valves are available in 2-way, 2-position and 3-way, 2-position configurations. Materials of construction are predominantly 316L stainless steel. Elastomer sealing material is Viton as standard (other materials are available for extreme temperature conditions).

OPERATING PARAMETERS

WORKING PRESSURE:
12 bar max, - pneumatic / low pressure liquid service
690 bar max, - liquid service (wp limited according to valve type)

CONNECTIONS:
1/4” NPT, 3/8” NPT, 1/2” NPT according to valve type

FLOW CAPACITY:
Up to 50lpm nominal, direct acting
Up to 200lpm nominal, indirect acting

OPERATING TEMPERATURES:
Eutectic plug: 72°C, 92°C, 125°C, 135°C

FLOW CAPACITY:
Up to 50lpm nominal, direct acting
Up to 200lpm nominal, indirect acting

SELECTION CHARTS:

Direct Acting, Eutectic Plug - up to 690 bar liquid service:

<table>
<thead>
<tr>
<th>ETSV</th>
<th>Eutectic Plug valve</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15 lpm nominal</td>
<td>Flow Rating</td>
</tr>
<tr>
<td>50</td>
<td>50 lpm nominal</td>
<td>Connections</td>
</tr>
<tr>
<td>04</td>
<td>1/4” NPT</td>
<td>Configuration</td>
</tr>
<tr>
<td>06</td>
<td>3/8” NPT</td>
<td>Configuration</td>
</tr>
<tr>
<td>08</td>
<td>1/2” NPT</td>
<td>Configuration</td>
</tr>
<tr>
<td>22</td>
<td>2-way, 2-position</td>
<td>Melt temperature (°C)</td>
</tr>
<tr>
<td>32</td>
<td>3-way, 2-position</td>
<td>Example Code</td>
</tr>
</tbody>
</table>

Example Code:
ETSV 50 / 08 / 22 / NO / V / 92C

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Frangible Bulb + Eutectic Material
March 2007

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### Direct Venting Plug - 12 bar pneumatic / liquid service:

<table>
<thead>
<tr>
<th>ETSP</th>
<th>Eutectic Plug</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>1/4&quot;NPT</td>
<td>Connections</td>
</tr>
<tr>
<td>06</td>
<td>3/8&quot;NPT</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>1/2&quot;NPT</td>
<td>Melt temperature (°C)</td>
</tr>
</tbody>
</table>

| ETSP / 08 / 72C | Example Code |

### Direct Acting, Frangible Bulb - up to 690 bar liquid service 2/2 & 3/2

<table>
<thead>
<tr>
<th>FBVP</th>
<th>Subbase mounting</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>1/4NPT body ported</td>
<td>Type 81x3 &amp; 81x8 only</td>
</tr>
<tr>
<td>81</td>
<td>3-way, 2-position</td>
<td>Configuration</td>
</tr>
<tr>
<td>0</td>
<td>2-way, 2-position</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5 lpm @10 bar Dp</td>
<td>Flow rating</td>
</tr>
<tr>
<td>3RF</td>
<td>5 lpm @10 bar Dp reverse flow ‘S’ to ‘P’</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1 lpm nominal</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8 lpm @10 bar Dp</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>Normally Closed (fail close on bulb fracture)</td>
<td>Configuration</td>
</tr>
<tr>
<td>03</td>
<td>207 bar</td>
<td>Working Pressure</td>
</tr>
<tr>
<td>05</td>
<td>345 bar</td>
<td>Type 8x03, 8x05</td>
</tr>
<tr>
<td>07</td>
<td>518 bar</td>
<td>Types 8x05</td>
</tr>
<tr>
<td>10</td>
<td>690 bar</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Nitrile (-30°C to +130°C)</td>
<td>O-ring Material</td>
</tr>
<tr>
<td>V</td>
<td>Viton (-20°C to +180°C)</td>
<td></td>
</tr>
<tr>
<td>57C</td>
<td>; 68C ; 79C ; 93C ; 141C ; 182C</td>
<td></td>
</tr>
</tbody>
</table>

### Indirect Acting, Frangible Bulb - up to 690 bar liquid service  2/2 & 3/2

| FP15 | 15 lpm nominal |
| FP50 | 50 lpm nominal |
| FP100| 100 lpm nominal |
| FP200| 200 lpm nominal |
| FPV8xxx | up to 40 lpm nominal (contaminated fluids) |

2-stage frangible bulb valve

### Indirect Acting, Frangible Bulb - 12 bar pneumatic / liquid service - Vent to atmosphere on bulb fracture.

| S06 | 1/4 NPT |
| S09 | 3/8 NPT |
| S12 | 1/2 NPT |

| S06 / FVMB / 79C | Example Code |

### Preferred Range

**S06-FVMB-68C** 1/4” NPT Frangible bulb valve rates 68°C, 1 - 12 bar

**S12-FVMB-68C** 1/2” NPT Frangible bulb valve rates 68°C, 0 - 12 bar
Reliability and Innovation in directional control valves

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Quality Assurance
All Bifold Fluidpower products are manufactured to a most stringent QA programme. Every care is taken at all stages of manufacture to ensure that every product will give optimum performance and reliability. We are recognised to EN ISO 9001:2000. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BSEN 10204 3.1.B where available. The manufacturer reserves the right to make changes to the specifications and design etc., without prior notice

Accuracy of information
We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products and services are continually updated so to ensure accurate and up-to-date information please refer to the issue list on the web site or contact a member of our sales team.

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