**2200 Series**

**0 to 800 psig Check Valves**

### How it Works

**Open**
Flow passes smoothly over poppet head with minimum turbulence and through the fluted guide without restriction.

**Closing**
O-ring automatically establishes line of contact with spherical seat to cushion closing and insure perfect sealing.

**Closed**
O-ring only seals. Full pressure is carried by metal-to-metal seat.

### Features
- Medium flow
- Single piece design
- Resilient o-ring

### Benefits
- Maintenance free
- Dependable
- Economical

### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Construction Materials</td>
<td>Brass, 316 stainless steel</td>
</tr>
<tr>
<td>O-ring Materials</td>
<td>Buna N, ethylene propylene, neoprene, silicone, or Viton®</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>0 to 800 psig (55 bar)</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>1,200 psig (83 bar)</td>
</tr>
<tr>
<td>Cracking Pressure</td>
<td>1 to 3 psig (0.07 to 0.21 bar)</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>−70° F to +450° F (−57° C to +232° C)</td>
</tr>
<tr>
<td>Connection Sizes</td>
<td>⅛&quot; to 1&quot;</td>
</tr>
</tbody>
</table>

Note: Proper filtration is recommended to prevent damage to sealing surfaces.

Circle Seal Controls
2301 Wardlow Circle • Corona, CA 92880
Phone (951) 270-6200 • Fax (951) 270-6201
www.circlesealcontrols.com
2200 Series

Dimensions, Pressure Drop & Flow Rates

Maximum Allowable Pressure Drop

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Size</th>
<th>2249 &amp; 2262 Series</th>
<th>2224, 2232, 2233 &amp; 2259 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1MM / –1SS</td>
<td>¼&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
<tr>
<td>–2MM / –2SS</td>
<td>¼&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
<tr>
<td>–3MM / –3SS</td>
<td>½&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
<tr>
<td>–4MM / –4SS</td>
<td>½&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
<tr>
<td>–6MM / –6SS</td>
<td>¾&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
<tr>
<td>–8MM / –8SS</td>
<td>1&quot;</td>
<td>10 psid</td>
<td>15 psid</td>
</tr>
</tbody>
</table>

Flow Rates

<table>
<thead>
<tr>
<th>Valve size</th>
<th>–1MM</th>
<th>–2MM</th>
<th>–3MM</th>
<th>–4MM</th>
<th>–6MM</th>
<th>–8MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cv (nominal)</td>
<td>0.26</td>
<td>0.74</td>
<td>1.1</td>
<td>2.1</td>
<td>4.7</td>
<td>6.6</td>
</tr>
</tbody>
</table>

How to Order

O-RING MATERIAL, TEMPERATURE & STANDARD CRACKING RANGE

- 49 Buna N, −65°F to +250°F, 4.0 psig
- 59 Buna N, −65°F to +275°F, 2.0 psig
- 62 EPR, −65°F to +300°F, 4.0 psig
- 33 Neoprene, −40°F to +300°F, 4.0 psig
- 24 Silicone, −70°F to +450°F, 2.0 psig
- 32 Viton®, −20°F to +400°F, 2.0 psig
- 20 PTFE, −100°F to +400°F, 4.0 psig

BODY MATERIAL

- B Brass†
- T1 316 stainless steel

For PED applications, brass bodies are limited to a maximum temperature of +100°F (+38°C).

Please consult Circle Seal Controls or your local distributor for information on special connections, o-rings, operating pressures, reseal pressures and temperature ranges.

Leakage

- 2249, 2262 Series: zero @ 3 psig to 800 psig
- 2259, 2232, 2233 & 2224 Series: zero @ 1 psig to 800 psig
- 2220 Series: 10cc/min maximum from zero to 75 psig; zero from 75 psig to 800 psig

Cracking Pressure

- Minimum cracking pressure available: 0.1 psig
- Maximum cracking pressure available: 7.0 psig

Note: Cracking pressure is defined as pressure at which flow is 5cc/min, except the 2220 Series, for which flow is approximately 0.02 cfm. For standard cracking pressures and less (example: 2259–2MM–3), the tolerance is ±0%, −100%. For cracking pressure greater than standard (example: 2259B–2MM–5), the tolerance is ±20%.

For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

Viton® is a registered trademark of DuPont Dow Elastomers.