## Relief Valves

### DESCRIPTION
Relief valves are designed to protect sensitive pneumatic and hydraulic systems from over pressurization by relieving the excess pressure in the system. They open (crack) at the desired pressure, and close (reseat) at a lower system pressure. Adjustable and preset cracking pressures, with customizable crack to reseat pressure ranges are available, along with an extensive range of pressure and flow capacities. Optional outlet porting includes captured-vent or vent to atmosphere construction (non-propulsive venting).

### FEATURES
- Maximum Operating Pressure: Up to 3300 PSI
- Leak Rate: Internal is less than 6.0 cc/hr; External is 0 cc/min at 3000 PSIG
- Temperature: -65°F to 165°F
- Low weight, typically < 1 lb.
- Adjustable cracking pressure available
- Ported and manifold mount connections available
- Extensive configurable body and seal material combinations
- Fully customizable for your application

### APPLICATION
Relief valves are used in aircraft cabin and potable water system pressurization systems, canopy seal pressure control, and emergency landing gear systems. Relief valves are often used downstream of pressure regulators to protect the system from a regulator malfunction.

### Table: Examples

<table>
<thead>
<tr>
<th>Examples</th>
<th>Operating Fluid</th>
<th>Cracking Pressure</th>
<th>Reseat Pressure</th>
<th>Flow Rate</th>
<th>Weight (lb)</th>
<th>Body Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>V3500-61-W</td>
<td>Hydraulic Oil</td>
<td>3800-3916 PSIA</td>
<td>3742 PSIA</td>
<td>40 cc/min.</td>
<td>0.23</td>
<td>CRES 303</td>
</tr>
<tr>
<td>V3500-89-W</td>
<td>Air/GN₂</td>
<td>3250-3350 PSIG</td>
<td></td>
<td>0.024&quot; ESEO</td>
<td>0.22</td>
<td>Aluminum</td>
</tr>
<tr>
<td>V3500-154-W</td>
<td>Turbine Oil and Air</td>
<td>18-20 PSID</td>
<td></td>
<td>0.276&quot; ESEO</td>
<td>0.82</td>
<td>Nitronic 60</td>
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<tr>
<td>841031-2-1-W</td>
<td>GN₂</td>
<td>3450-3750 PSI</td>
<td></td>
<td>0.024&quot; ESEO</td>
<td>0.16</td>
<td>Aluminum</td>
</tr>
<tr>
<td>V3500-1300-3-W</td>
<td>GN₂, Air</td>
<td>2755-3045 PSIG</td>
<td>2625 PSIG</td>
<td>0.055&quot; ESEO</td>
<td>1.0</td>
<td>Aluminum</td>
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</tbody>
</table>

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Valcor specializes in custom designs. Below are just a few examples of solutions we have created in the past for our customers.