A WARNING

Service and installation must be performed by a trained/experienced service technician.

All products used with combustible gas must be installed and used strictly in accordance with the instructions of the Original Equipment Manufacturer (OEM) and with all applicable government codes and regulations, e.g. plumbing, mechanical, and electrical codes and practices. Maxitrol products should be installed and operated in accordance with Maxitrol Safety Warning Instructions.

Maxitrol Company is NOT responsible for any errors or omissions in reliance by anyone of any information set forth in this catalog without additional reference to local requirements and applicable ordinances or codes.

Other worldwide approvals and certifications available upon inquiry.
Maxitrol’s original straight-thru-flow (STF) design regulators are non-lockup type regulators for high capacities at low inlet pressures. The difference between STF design and other type regulators is the conical valve. The cone principal permits gas to flow straight through the regulator without changing directions. Frictional flow resistance is reduced, resulting in greater capacity. An improved flow pattern provides accurate, sensitive regulation at extremely low pressure differentials. Typical applications include residential, commercial, and industrial gas-fired appliances and equipment used on low or medium pressure gas supplies.

Specifications

Pipe Sizes .................................. 1/2” to 3” threaded connections with NPT or ISO7-1 threads. 4” 150lb. flange (RV131 only).

Housing Material ....................... RV52, RV53, RV61, RV81, RV91, RV111: aluminum; RV131: cast iron.

Mounting ................................. RV52, RV53, RV61 are suitable for multi-positional mounting. If ball check vent limiting device is installed, mount in an upright position only. RV81, RV91, RV111, RV131, upright position only.

NOTE: All Maxitrol gas pressure regulators should be installed and operated in accordance with Maxitrol Safety Warning Instructions (see GPR_MIL_EN.ES or GPR_CSA_MIL_EN.FR).


Gas Types ................................. Suitable for natural, manufactured, mixed gases, liquefied petroleum gases, and LP gas-air mixtures.

Maximum Inlet Pressure .......... CSA Certified: RV52, RV53, RV61, RV81, RV91, RV111: 1/2 psi (3.4 kPa)

Maxitrol Tested*: RV52, RV53: 1/2 psi (3.4 kPa)

RV61, RV81, RV91, RV111: 1 psi (6.9 kPa)

RV131: 2 psi (13.8 kPa)

*Do not use if inlet pressure is more than 10 times desired outlet pressure.

Emergency Exposure Limits ...... RV52, RV53: 3 psi (21 kPa)

RV61, RV81, RV91, RV111: 5 psi (34 kPa)

RV131: 15 psi (103 kPa)

Gas Containment Limits .......... RV52, RV53: 15 psi (103 kPa)

RV61, RV81, RV91, RV111, RV131: 25 psi (172 kPa)

NOTE: Internal damage may occur when exposed to these pressures.

Ambient Temperature Ranges... RV52, RV53, RV61, RV81, RV91, RV111: -40° to 205°F (-40° to 96°C)

RV131: -40° to 125°F (-40° to 52°C)

Minimum Regulation ............... RV52, RV53: 20 CFH; RV61: 25 CFH; RV81, RV91: 50 CFH; RV111, RV131: 250 CFH.
### Capacities and Pressure Drop

Capacities expressed in CFH (m³/h) @ 0.64 sp gr gas

- **Spring Selection Chart:** inches w.c. (kPa)

#### Model | CSA Certified Springs | Other Springs Available
---|---|---
RV52 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | --- | --- | --- | --- | ---
RV53 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | --- | --- | --- | --- | ---
RV61 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | --- | --- | 10 to 22 (2.5 to 5.5) Red | --- | ---
RV61 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | 5 to 15 (1.25 to 3.7) Green | 10 to 22 (2.5 to 5.5) Red | --- | ---
RV91 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | 5 to 15 (1.25 to 3.7) Green | 10 to 22 (2.5 to 5.5) Red | --- | ---
RV111 | 3 to 6 (0.75 to 1.5) Plated | 4 to 8 (1 to 2) Orange | 5 to 12 (1.25 to 3) Blue | 1 to 3.5 (0.25 to 0.9) Brown | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | 5 to 15 (1.25 to 3.7) Green | 10 to 22 (2.5 to 5.5) Red | --- | ---
RV131 | 3 to 6 (0.75 to 1.5) Plated | --- | 5 to 12 (1.25 to 3) Blue | --- | 2 to 5 (0.5 to 1.25) Plated | 3 to 8 (0.75 to 2) Pink | 4 to 12 (1 to 3) Violet | --- | 10 to 22 (2.5 to 5.5) Red | 15 to 30 (3.7 to 7.5) Yellow | 20 to 42 (5 to 10.5) Black | --- | ---

**NOTE:** The area within the heavy line indicates CSA certified springs. See pages 56-57 for complete Spring Selection Chart.

*The 2 to 5 inches w.c. (0.5 to 1.25 kPa) spring is also CSA certified for the RV61*
## Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Pipe Size</th>
<th>Vent Connection</th>
<th>Swing Radius</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>RV52</td>
<td>1/2&quot;, 3/4&quot;</td>
<td>1/8&quot; NPT</td>
<td>3.6&quot; (91 mm)</td>
<td>4.9&quot; (124 mm)</td>
</tr>
<tr>
<td>RV53</td>
<td>3/4&quot;, 1&quot;</td>
<td>1/8&quot; NPT</td>
<td>3.9&quot; (99 mm)</td>
<td>5.2&quot; (132 mm)</td>
</tr>
<tr>
<td>RV61</td>
<td>1&quot;, 1 1/4&quot;</td>
<td>1/8&quot; NPT</td>
<td>4.8&quot; (122 mm)</td>
<td>6.4&quot; (164 mm)</td>
</tr>
<tr>
<td>RV81</td>
<td>1 1/4&quot;, 1 1/2&quot;</td>
<td>3/8&quot; NPT</td>
<td>6.4&quot; (162 mm)</td>
<td>8.4&quot; (213 mm)</td>
</tr>
<tr>
<td>RV91</td>
<td>2&quot;</td>
<td>1/2&quot; NPT</td>
<td>8.5&quot; (216 mm)</td>
<td>10.8&quot; (275 mm)</td>
</tr>
<tr>
<td></td>
<td>2 1/2&quot;</td>
<td>1/4&quot; NPT</td>
<td>8.3&quot; (212 mm)</td>
<td>10.5&quot; (267 mm)</td>
</tr>
<tr>
<td>RV111</td>
<td>2 1/2&quot; x 3&quot;</td>
<td>3/4&quot; NPT</td>
<td>11.5&quot; (284 mm)</td>
<td>15.1&quot; (373 mm)</td>
</tr>
<tr>
<td>RV131</td>
<td>4&quot;</td>
<td>3/4&quot; NPT</td>
<td>18.2&quot; (462 mm)</td>
<td>23.3&quot; (592 mm)</td>
</tr>
</tbody>
</table>

**NOTE:** Dimensions are maximums and to be used only as an aid in designing clearance for the valve. Actual production dimensions may vary somewhat from those shown.
Straight-Thru-Flow Design

NOTE: Diagrams are graphical representations only and may differ from actual product.