NRS High-Accuracy Valves

Model 61NRA

Scott™ brand NRS high-accuracy valves are designed for very fine control of gas or liquid flow rates. The bar stock valve includes a non-rising stem design and a non-rotating needle that provides easy and smooth flow adjustments at very low flow rates. The needle moves in a rectilinear fashion which accounts for its desirable sixteen-turn high resolution attribute. The valve body is precision machined chrome-plated brass or type 316 Stainless Steel. The stem/orifice assembly can be interchanged as to provide different flow capacities. See the chart below for the proper assembly for required flow rate.

Benefits/Features
Bubble-tight shutoff
Virtually free of hysteresis (see-sawing)
16 revolutions of the adjusting handle (fully opened to fully closed) provide excellent resolution

Specifications
Inlet Pressure:
500 psig (34 bar) maximum
Operating Temperature Range:
Brass body: 180°F (82°C) maximum
Stainless steel body: 250°F (121°C) maximum
Inlet/Outlet Ports: 1/8” NPT Female
Weight: 0.5 lbs. (0.2 kg)

Materials of Construction
Body: Chrome-plated brass or 316 Stainless Steel
Valve Needle: 316 Stainless Steel
Orifice: 316 Stainless Steel with PTFE liner
O-Rings:
Brass valves: Buna-N
Stainless steel valves: Viton®

<table>
<thead>
<tr>
<th>Orifice Number</th>
<th>Inlet/Outlet Ports</th>
<th>Capacity (ml/min) Air</th>
<th>Capacity (ml/min) Water</th>
<th>Orifice</th>
<th>Flow Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/8” NPT Female</td>
<td>200</td>
<td>6</td>
<td>0.042</td>
<td>0.0005</td>
</tr>
<tr>
<td>2</td>
<td>1/8” NPT Female</td>
<td>400</td>
<td>12</td>
<td>0.042</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>1/8” NPT Female</td>
<td>1,000</td>
<td>30</td>
<td>0.042</td>
<td>0.0025</td>
</tr>
<tr>
<td>4</td>
<td>1/8” NPT Female</td>
<td>2,500</td>
<td>70</td>
<td>0.093</td>
<td>0.0061</td>
</tr>
<tr>
<td>5</td>
<td>1/8” NPT Female</td>
<td>6,200</td>
<td>200</td>
<td>0.093</td>
<td>0.016</td>
</tr>
<tr>
<td>6</td>
<td>1/8” NPT Female</td>
<td>21,500</td>
<td>650</td>
<td>0.093</td>
<td>0.054</td>
</tr>
</tbody>
</table>

* Air capacity is based on 10 psig (0.7 bar) exhausted to atmospheric pressure.

* Specify orifice number.

Please note: Adapters are available to convert to 1/8" tube fittings, 1/4" tube fittings or hose fittings—contact your Air Liquide representative.