Pilot operated pressure relief valves for in-line mounting series R4V have a similar design to the subplate mounted R4V series. For single functions – where no manifold blocks are used – the valves can be directly placed in the pipework.

The R4V valves are available with 2 ports (L-body) for in-line relief function or with 3 ports (T-body) for relief functions in the bypass.

**Features**
- Pilot operated with manual adjustment
- 2 interfaces:
  - L-body (R4V06-G¾", R4V10-G1¼")
  - T-body (R4V03-G½", R4V06-G1")
- 3 pressure stages
- 3 adjustment modes
  - Hand knob
  - Acorn nut with lead seal
  - Cylinder lock
- With optional vent function

**R4V06 L-body**
## Ordering Code

### Series R4V

<table>
<thead>
<tr>
<th>Code</th>
<th>Nominal size</th>
<th>Max. pressure 350 bar</th>
<th>Body</th>
<th>Pressure stages</th>
<th>Adjustment</th>
<th>Drain line</th>
<th>Switching type</th>
<th>Solenoid voltage</th>
<th>Design series (not required for ordering)</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>NG10 (G½&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>NG25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>NG32 (G1¼&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>R4V03 T-body</td>
</tr>
<tr>
<td>D</td>
<td>R4V06 L-body</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Pressure stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>up to 105 bar</td>
</tr>
<tr>
<td>3</td>
<td>up to 210 bar</td>
</tr>
<tr>
<td>5</td>
<td>up to 350 bar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hand knob</td>
</tr>
<tr>
<td>3</td>
<td>Acorn nut with lead seal</td>
</tr>
<tr>
<td>4</td>
<td>Cylinder lock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Solenoid voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Standard w/o vent function</td>
</tr>
<tr>
<td>09</td>
<td>Solenoid not activated unpressure circulation</td>
</tr>
<tr>
<td>11</td>
<td>Solenoid activated unpressure circulation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Drain line</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>internal</td>
</tr>
<tr>
<td>2</td>
<td>external from pilot head (Y1)</td>
</tr>
</tbody>
</table>

---

1) To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.
### R4V

**General**

<table>
<thead>
<tr>
<th>Design</th>
<th>T-body</th>
<th>L-body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>03 (½&quot;)</td>
<td>06 (1&quot;)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Threaded body</td>
<td></td>
</tr>
<tr>
<td>Mounting position</td>
<td>unrestricted</td>
<td></td>
</tr>
<tr>
<td>Ambient temperature [°C]</td>
<td>-20...+60</td>
<td></td>
</tr>
<tr>
<td>MTTF_D value [years]</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.2</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**Hydraulic**

| Max. operating pressure [bar] | Ports A and X up to 350; Ports B and Y 30 bar |
| Pressure stages [bar] | 105, 210, 350 |
| Nominal flow [l/min] | 60 | 200 | 200 | 450 |
| Fluid | Hydraulic oil according to DIN 51524 |
| Fluid temperature [°C] | -20...+70 (NBR: -25...+70) |
| Viscosity permitted [cSt] / [mm²/s] | 20...400 |
| Viscosity recommended [cSt] / [mm²/s] | 30...80 |
| Filtration | ISO 4406 (1999); 18/16/13 |

### R4V with vent function

**General**

<table>
<thead>
<tr>
<th>Design</th>
<th>T-body</th>
<th>L-body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>03 (½&quot;)</td>
<td>06 (1&quot;)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Threaded body</td>
<td></td>
</tr>
<tr>
<td>Mounting position</td>
<td>unrestricted</td>
<td></td>
</tr>
<tr>
<td>Ambient temperature [°C]</td>
<td>-20...+60</td>
<td></td>
</tr>
<tr>
<td>MTTF_D value [years]</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.9</td>
<td>8.3</td>
</tr>
</tbody>
</table>

**Hydraulic**

| Max. operating pressure [bar] | Ports A and X up to 350; Ports B and Y 30 bar |
| Pressure stages [bar] | 105, 210, 350 |
| Nominal flow [l/min] | 60 | 200 | 200 | 450 |
| Fluid | Hydraulic oil according to DIN 51524 |
| Fluid temperature [°C] | -20...+70 (NBR: -25...+70) |
| Viscosity permitted [cSt] / [mm²/s] | 20...400 |
| Viscosity recommended [cSt] / [mm²/s] | 30...80 |
| Filtration | ISO 4406 (1999); 18/16/13 |

**Electrical (solenoid)**

| Duty ratio | 100 % ED; CAUTION: coil temperature up to 150 °C possible |
| Protection class | IP65 in accordance with EN 60529 (with correctly mounted plug-in connector) |
| Code | G0R | G0Q | GAR | GAG | W30 | W31 |
| Supply voltage [V] | 12 V = 24 V = 98 V = 205 V = 110 at 50 Hz 120 at 60 Hz 230 at 50 Hz 240 at 60 Hz |
| Tolerance supply voltage [%] | ±10 | ±10 | ±10 | ±10 | ±5 | ±5 |
| Current consumption [A] in hold | 2.72 | 1.29 | 0.33 | 0.13 | 0.6 / 0.55 | 0.3 / 0.27 |
| Power consumption [W] in hold | 32.7 | 31 | 31.9 | 28.2 | 70/70 VA | 70/70 VA |
| Solenoid connection | Connector as per EN175301-803, solenoid identification as per ISO 9461 |
| Wiring min. [mm²] | 3 x 1.5 recommended |
| Wiring length max. [m] | 50 recommended |
Pilot Operated Pressure Relief Valve
Series R4V

Characteristic Curves / Dimensions

p/Q performance curve ¹)

Minimum pressure curve

All characteristic curves measured with HLP46 at 50 °C.

Dimensions

T-body

¹) The performance curves are measured with external drain. For internal drain the tank pressure has to be added to curve.
Pilot Operated Pressure Relief Valve
Series R4V

**Dimensions**

**L-body**

![Diagram of L-body valve]

**Seal kits**

<table>
<thead>
<tr>
<th>NG</th>
<th>Body</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>H4</th>
<th>H5</th>
<th>H6</th>
<th>H7</th>
<th>H8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>T-body</td>
<td>85</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>27.5</td>
<td>21</td>
<td>59.5</td>
<td>97.5</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>53</td>
<td>92</td>
<td>–</td>
</tr>
<tr>
<td>06</td>
<td>T-body</td>
<td>136</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>38</td>
<td>28</td>
<td>93</td>
<td>131</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>66.5</td>
<td>117.5</td>
<td>–</td>
</tr>
<tr>
<td>06</td>
<td>L-body</td>
<td>–</td>
<td>81</td>
<td>76</td>
<td>43</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>23</td>
<td>51</td>
<td>81</td>
<td>119</td>
<td>–</td>
<td>–</td>
<td>49</td>
</tr>
<tr>
<td>10</td>
<td>L-body</td>
<td>–</td>
<td>120.7</td>
<td>85.8</td>
<td>77.8</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>38.1</td>
<td>50.8</td>
<td>96</td>
<td>134</td>
<td>–</td>
<td>–</td>
<td>49.8</td>
</tr>
</tbody>
</table>

**Ports**

<table>
<thead>
<tr>
<th>Ports</th>
<th>Function</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>pressure (inlet)</td>
<td>R4V03 T-body</td>
</tr>
<tr>
<td>B</td>
<td>tank (outlet)</td>
<td>G½ &quot;</td>
</tr>
<tr>
<td>X 1)</td>
<td>external remote control or vent connection</td>
<td>G¾ &quot;</td>
</tr>
<tr>
<td>Y1 2)</td>
<td>external drain</td>
<td>G¼ &quot;</td>
</tr>
</tbody>
</table>

1) Closed when supplied.
2) Port Y1 is only available at drain line (code 2) external from the pilot head.
R4V with vent function

<table>
<thead>
<tr>
<th>Code</th>
<th>Internal drain</th>
<th>External drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td><img src="image" alt="Internal drain 11" /></td>
<td><img src="image" alt="External drain 11" /></td>
</tr>
<tr>
<td>09</td>
<td><img src="image" alt="Internal drain 09" /></td>
<td><img src="image" alt="External drain 09" /></td>
</tr>
</tbody>
</table>

Seal kits

<table>
<thead>
<tr>
<th></th>
<th>NBR</th>
<th>FPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC solenoid</td>
<td>S56-40609-0</td>
<td>S56-40609-5</td>
</tr>
<tr>
<td>AC solenoid</td>
<td>S26-35237-0</td>
<td>S26-35237-5</td>
</tr>
</tbody>
</table>

R4V UK.indd CM 18.02.15