**Description**

Two stage poppet type Relief valve.
Solenoid unloading or proportional relieving facility as an optional feature.
Vent connection for remote control.
Two standard sizes in Threaded construction.
Three standard sizes in Sub-plate mounting construction.

**Section**

External pilot, Internal drain

Type A

External pilot, External drain

Type YA

Type B

Type YB

Type P

Type YP

**Hydraulic symbol**

**Unit dimensions**

Valve : Threaded body

<table>
<thead>
<tr>
<th>Size</th>
<th>Mass (kg)</th>
<th>G</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>H4</th>
<th>H5</th>
<th>H6</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>B1</th>
<th>B2</th>
<th>ØD1</th>
<th>ØD2</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>4.8</td>
<td>G1</td>
<td>131</td>
<td>140</td>
<td>25</td>
<td>10</td>
<td>57</td>
<td>100</td>
<td>85</td>
<td>43</td>
<td>12</td>
<td>33.5</td>
<td>153</td>
<td>155</td>
<td>66</td>
<td>33</td>
<td>44</td>
<td>9</td>
<td>M8</td>
</tr>
<tr>
<td>30</td>
<td>9.5</td>
<td>G1-1/2</td>
<td>170</td>
<td>178</td>
<td>42</td>
<td>13</td>
<td>80</td>
<td>138</td>
<td>100</td>
<td>54</td>
<td>18</td>
<td>41.5</td>
<td>162</td>
<td>163</td>
<td>86</td>
<td>43</td>
<td>60</td>
<td>11</td>
<td>M10</td>
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</tbody>
</table>
Valve: Subplate mounting

Solenoid valve or Proportional relief valve (Provision)
(Refer Note 1 on page 3.)
(★ Dimension indicative only, refer individual product catalogue.)

Pressure adjusting screw (4 A/F)
(Hand knob available as an optional feature)

ØD1, thru
("M" size S.H.C.screw, For fixing screws refer table No. 2)

Table No. 2

<table>
<thead>
<tr>
<th>Size</th>
<th>H1</th>
<th>H2</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>ØD1</th>
<th>B1</th>
<th>B2</th>
<th>Mass</th>
<th>Valves fixing Screws</th>
<th>Tightening Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>120</td>
<td>82</td>
<td>150</td>
<td>80</td>
<td>4</td>
<td>12.9</td>
<td>53.8</td>
<td>142</td>
<td>13</td>
<td>80</td>
<td>53.8</td>
<td>4.8</td>
<td>M12 x 100 L - 4 nos.</td>
<td>125 Nm</td>
</tr>
<tr>
<td>20</td>
<td>115</td>
<td>66</td>
<td>167</td>
<td>120</td>
<td>4</td>
<td>35.9</td>
<td>66.7</td>
<td>163</td>
<td>18</td>
<td>100</td>
<td>70</td>
<td>6.7</td>
<td>M16 x 90 L - 4 nos.</td>
<td>300 Nm</td>
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<tr>
<td>30</td>
<td>143</td>
<td>93</td>
<td>182</td>
<td>155</td>
<td>4</td>
<td>47.3</td>
<td>88.9</td>
<td>178.5</td>
<td>20</td>
<td>120</td>
<td>82.6</td>
<td>12</td>
<td>M18 x 120 L - 4 nos.</td>
<td>500 Nm</td>
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</tbody>
</table>

Table No. 3

<table>
<thead>
<tr>
<th>Size</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>L7</th>
<th>L8</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>ØD1</th>
<th>ØD2</th>
<th>ØD3</th>
<th>Mass</th>
<th>Valves fixing Screws</th>
<th>Tightening Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>80</td>
<td>12.9</td>
<td>0</td>
<td>22.1</td>
<td>22.1</td>
<td>47.5</td>
<td>53.8</td>
<td>31.8</td>
<td>80</td>
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<td>26.9</td>
<td>13</td>
<td>13</td>
<td>4.8</td>
<td>4.8</td>
<td>M12 x 100 L - 4 nos.</td>
<td>125 Nm</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>120</td>
<td>35.9</td>
<td>23.8</td>
<td>11.1</td>
<td>33.4</td>
<td>55.6</td>
<td>66.7</td>
<td>43.7</td>
<td>100</td>
<td>70</td>
<td>35</td>
<td>15</td>
<td>23</td>
<td>6.3</td>
<td>6.3</td>
<td>M16 x 90 L - 4 nos.</td>
<td>300 Nm</td>
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</tr>
<tr>
<td>30</td>
<td>155</td>
<td>47.3</td>
<td>31.8</td>
<td>12.7</td>
<td>44.5</td>
<td>76.2</td>
<td>88.9</td>
<td>54.9</td>
<td>120</td>
<td>82.6</td>
<td>41.3</td>
<td>18.7</td>
<td>32</td>
<td>6.3</td>
<td>6.3</td>
<td>M18 x 120 L - 4 nos.</td>
<td>500 Nm</td>
<td></td>
</tr>
</tbody>
</table>

Note:
Surface roughness: Ra value is equal to or better than 0.8 µm
Surface flatness: 0.01 - 100 mm.
Technical specifications

Construction ....................... Two stage poppet valve.
Mounting ............................... Threaded bodies - Company standards
                                      Subplate mounting - ISO6264.
Mounting position .................... Optional.
Flow direction ....................... From port P to port T.
Maximum Operating pressure
                                      For port P and X ............. 315 bar.
( For model with solenoid valve mounting provision )
                                      For port T and Y ............. 210 bar.
                                      For port T and Y ............. Max. pressure is equal to tank port pressure rating
                                      of the valve mounted. *
Hydraulic medium ..................... Mineral oil.
Viscosity range ..................... 10 cSt to 380 cSt
Fluid temperature range ............. -20°C to +70°C
Fluid cleanliness requirement ........ ISO 4406 20/18/15 or better.
Maximum flow handling capacity ........ For valve size
                                      10 .......... 100 l/min
                                      20 .......... 200 l/min
                                      30 .......... 400 l/min
Mass ..................................... Refer individual table.

* Port pressure is additive to the setting of the valve.

Ordering code

<table>
<thead>
<tr>
<th>PPR</th>
<th>S</th>
<th>10</th>
<th>S</th>
<th>100</th>
<th>Y</th>
<th>A</th>
<th>15</th>
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<tr>
<td>Pilot operated Pressure relief valve</td>
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<td>Set screw - S</td>
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<td>Hand knob - H</td>
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<td>Subplate mounting - Size 10, 20 &amp; 30</td>
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<tr>
<td>Threaded bodies - Size 20 &amp; 30</td>
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<tr>
<td>Subplate mounting - S</td>
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<tr>
<td>Pr. adjustment spring rating 25, 50, 100, 200 &amp; 315, 400 bar.</td>
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</tr>
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<td>External drain - Y</td>
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<td>Internal drain - Omit</td>
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</tr>
</tbody>
</table>

Model | Design code
PPR'10S | 15
PPR'20S | 14
PPR'30S | 14
PPR'20T | 15
PPR'30T | 14

Design code subject to change. Installation dimensions remain same for design code 10 thru 19.

Provision for mounting solenoid valve
A - Sol. Valve normally closed.
B - Sol. Valve normally opened.
P - Proportional relief valve.
Omit if not required

Note 1 : Solenoid ( refer spool type )