RPC* PRESSURE AND TEMPERATURE COMPENSATED FLOW CONTROL VALVES

SUBPLATE MOUNTING:
RPC 2 CETOP 06
RPC 3 CETOP 07

PERFORMANCE RATINGS (obtained with mineral oil with viscosity of 36 cSt at 50°C)

<table>
<thead>
<tr>
<th></th>
<th>RPC2</th>
<th>RPC3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>320</td>
<td>250</td>
</tr>
<tr>
<td>Check valve cracking pressure</td>
<td>0,5</td>
<td>0,5</td>
</tr>
<tr>
<td>Minimum pressure difference between E and U</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Maximum controlled flow rates</td>
<td>22 - 38 - 70</td>
<td>100 - 150</td>
</tr>
<tr>
<td>Minimum controlled flow rate</td>
<td>0,050</td>
<td>0,120</td>
</tr>
<tr>
<td>Ambient temperature range</td>
<td>°C</td>
<td>–20 + +50</td>
</tr>
<tr>
<td>Fluid temperature range</td>
<td>°C</td>
<td>–20 + +80</td>
</tr>
<tr>
<td>Fluid viscosity range</td>
<td>cSt</td>
<td>10 + 400</td>
</tr>
<tr>
<td>Recommended viscosity</td>
<td>cSt</td>
<td>25</td>
</tr>
<tr>
<td>Degree of fluid contamination</td>
<td>According to NAS 1638 class 10</td>
<td></td>
</tr>
<tr>
<td>Mass</td>
<td>kg</td>
<td>3,6</td>
</tr>
</tbody>
</table>

RPC valve:
- Pressure and temperature compensated flow control valve.
- Flow rate is adjusted with a calibrated knob that modulates the opening of the control gap and can be locked in any adjustment position by a screw.
- Flow rate adjustment range is carried out with six turns of the knob, with indication of the number of turns made. A one-turn adjustment on the knob, RPC1*/M, is available upon request.
1 - IDENTIFICATION CODE

RPC - T / / / / /  

Pressure compensated flow control valve

Series No.
2 = CETOP 06
3 = CETOP 07

Seals: omit for mineral oils
V = viton for special fluids

C = incorporated check valve
(omit if not required)

Temperature compensation

Controlled flow
Size 2
N = 22 l/min
S = 38 l/min
70 = 70 l/min

Size 3
100 l/min
150 l/min

(overall and mounting dimensions remain unchanged from 30 to 39 and from 40 to 49)

2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)

3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids, with the addition of suitable anti-frothing and anti-oxidizing agents.

For the use of other types (water glycol, phosphate esters and others), please consult our technical department.

4 - PRESSURE COMPENSATION

Two throttles in series are in the valve. The first is an opening regulated by the knob; the second, piloted by the pressure upstream and downstream of the first throttle, assures a constant pressure drop across the adjustable throttle. In these conditions, the set flow rate value stays constant within a tolerance range of ±3% of the maximum flow controlled by the valve for the maximum pressure variation between inlet and outlet chambers of the valve.

5 - TEMPERATURE COMPENSATION

A device located on the first throttle which is sensitive to the temperature fluctuations corrects the position keeping the controlled flow more or less unaltered even should the oil viscosity change.

The fluctuation of the set flow rate stays within ±2.5% of the maximum flow controlled by the valve.

6 - REVERSE FREE FLOW

The RPC* valves, upon request, are supplied with an incorporated check valve to allow free flow in the direction opposite of the controlled flow. In this case the valve code becomes RPC*-CT.

7 - COMPENSATING STROKE GOVERNOR

In order to avoid jumps in the actuator when it is started, the RPC valve can be equipped with a special accessory that controls the compensating stroke, thus preventing it from making uncontrolled movements.

Add the suffix RC to the identification code to request this governor. See par. 1.
8 - RPC2 SERIES 31 OVERALL AND MOUNTING DIMENSIONS

- Adjustment knob. Anticlockwise rotation to increase flow rate
- Mounting surface with sealing rings: 2 OR type 119
- Indicator of number of knob turns
- Compensating stroke governor (optional)
- Knob locking screw

FASTENING BOLTS: 4 bolts M8x60
Tightening torque: 20 Nm

9 - RPC3 SERIES 43 OVERALL AND MOUNTING DIMENSIONS

- Adjustment knob. Anticlockwise rotation to increase flow
- Mounting surface with sealing rings: 2 OR type 3106
- Indicator of number of knob turns
- Compensating stroke governor (optional)
- Knob locking screw

FASTENING BOLTS: 4 bolts M10x90
Tightening torque: 40 Nm
### 10 - SUBPLATES (see catalogue 51 000)

<table>
<thead>
<tr>
<th>Type</th>
<th>PMRPC2-AI4G with rear ports</th>
<th>PMRPC3-AI6G with rear ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port dimension</td>
<td>1/2&quot; BSP</td>
<td>1&quot; BSP</td>
</tr>
</tbody>
</table>