Typical Schematic

Typical application for the CP2 is in a proportional circuit to achieve pressure compensated flow control. The pressure compensator is located upstream of the orifice and is spring biased to an open position.
**DESCRIPTION**

**OPERATION**
The DF-CP2 allows pressure compensated flow from (2) to (3) regulated the pressure present at (1). Pressure differential between (3) and (1) is fixed at 8 / 14 / 18 bar (according to the pressure settings). These are minimum values, increasing with the flow because of the pressure drop through the valve (see graph)
When used with (1) connected to a drain line, it works as pressure reducing valve.

**FEATURES**
- Hardened parts for long life
- Industry common cavity
- Spring range 8 to 18 bar

**HYDRAULIC SYMBOL**
Pressure compensator for 2 way flow control, typically used with an external orifice inline with port (3). Port (1) should sense upstream pressure of orifice.

**PERFORMANCE**
Actual Test Data (Cartridge Only)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Flow</td>
<td>8 GPM (30 LPM)</td>
</tr>
<tr>
<td>Rated Operating Pressure</td>
<td>3500 PSI (241 bar)</td>
</tr>
<tr>
<td>Typical Internal Leakage</td>
<td>35 ml/min @ 250 bar</td>
</tr>
<tr>
<td>Viscosity Range</td>
<td>36 to 3000 SSU (3 to 647 cSt)</td>
</tr>
<tr>
<td>Filtration</td>
<td>ISO 18/16/13</td>
</tr>
<tr>
<td>Media Operating Temperature Range</td>
<td>-25° to +95° C</td>
</tr>
<tr>
<td>Weight</td>
<td>35 lbs. (.16 kg)</td>
</tr>
<tr>
<td>Operating Fluid Media</td>
<td>General Purpose Hydraulic Fluid</td>
</tr>
<tr>
<td>Cartridge Torque Requirements</td>
<td>33 ft-lbs (45 Nm)</td>
</tr>
<tr>
<td>Cavity</td>
<td>DELTA 3W</td>
</tr>
<tr>
<td>Cavity Tools kit (form tool, reamer, tap)</td>
<td>40500001</td>
</tr>
<tr>
<td>Seal Kit</td>
<td>210902025</td>
</tr>
</tbody>
</table>
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*a Delta Power Co.*

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>DF – CP2</th>
<th>-</th>
<th>-</th>
<th>BODIES</th>
<th>PRESSURE SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buna Standard</td>
<td>00</td>
<td></td>
<td></td>
<td>Blank</td>
<td>8 bar (115 psi)</td>
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<tr>
<td>Viton Standard</td>
<td>V0</td>
<td></td>
<td></td>
<td>Without Body</td>
<td>3/8” BSP Ports</td>
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<tr>
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<td></td>
<td></td>
<td>#6 SAE Ports</td>
<td>14 bar (200 psi)</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>18 bar (260 psi)</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Differential Pressure Across</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>External Controlling Orifice</td>
</tr>
</tbody>
</table>

(for bodies style and sizes see section “Accessories”)

**PERFORMANCE**

DF - CP2 014
FLOW (lt/min) vs INLET PRESSURE (bar)
For various orifice diameters (mm)

DF - CP2 018
FLOW (lt/min) vs INLET PRESSURE (bar)
For various orifice diameters (mm)
**QC-CP2 Pressure Compensating / Reducing Valve**

**DESCRIPTION**
Special cavity, 2 ways pressure compensating / reducing valve.

**OPERATION**
The QC-CP2 allows pressure compensated flow from (2) to (3) regulated the pressure present at (1). Pressure differential between (3) and (1) is fixed at 8 / 14 / 18 / 24 bar (according to the pressure settings). These are minimum values, increasing with the flow because of the pressure drop through the valve (see graph).

When used with (1) connected to a drain line, it works as a fixed setting pressure reducing valve.

**FEATURES**
- Hardened parts for long life
- Spring range from 8 to 24 bar

**HYDRAULIC SYMBOL**
Pressure compensator for 2 way flow control, typically used with an external orifice inline with port (3). Port (1) should sense upstream pressure of orifice.

**PERFORMANCE** Actual Test Data (Cartridge Only)

**VALVE SPECIFICATIONS**
- Nominal Flow: 19 GPM (70 LPM)
- Rated Operating Pressure: 3500 PSI (241 bar)
- Typical Internal Leakage (150 SSU): 35 ml/min @ 250 bar
- Viscosity Range: 36 to 3000 SSU (3 to 647 cSt)
- Filtration: ISO 18/16/13
- Media Operating Temperature Range: -40° to 250° F (-40° to 120° C)
- Weight: .35 lbs. (.16 kg)
- Operating Fluid Media: General Purpose Hydraulic Fluid
- Cartridge Torque Requirements: 33 ft-lbs (45 Nm)
- Cavity: T031
- Cavity Tools kit (form tool, reamer, tap): K-T031
- Seal Kit: 210902012

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**DIMENSIONS**

**ORDERING INFORMATION**

**OPTIONS**

- Buna Standard: 00
- Viton Standard: V0

**BODIES**

- Blank: Without Body
- N: 1/2" BSP Ports
- S: #8 SAE Ports

**PRESSURE SETTINGS**

- 008: 8 bar (115 psi)
- 014: 14 bar (200 psi)
- 018: 18 bar (260 psi)
- 024: 24 bar (340 psi)

Differential Pressure Across External Controlling Orifice